EXHIBIT S

```
Network Working Group                              J. Reynolds
Request for Comments: 1700                            J. Postel
STD: 2                                                     ISI
Obsoletes RFCs: 1340, 1060, 1010, 990, 960,      October 1994
943, 923, 900, 870, 820, 790, 776, 770,
762, 758, 755, 750, 739, 604, 503, 433, 349
Obsoletes IENs: 127, 117, 93
Category: Standards Track
```

ASSIGNED NUMBERS

Status of this Memo

This memo is a status report on the parameters (i.e., numbers and
keywords) used in protocols in the Internet community. Distribution
of this memo is unlimited.

OVERVIEW

This RFC is a snapshot of the ongoing process of the assignment of
protocol parameters for the Internet protocol suite. To make the
current information readily available the assignments are kept up-to-
date in a set of online text files. This RFC has been assembled by
catinating these files together with a minimum of formatting "glue".
The authors appologize for the somewhat rougher formatting and style
than is typical of most RFCs.

We expect that various readers will notice specific items that should be
corrected. Please send any specific corrections via email to
<iana@isi.edu>.

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WELL KNOWN PORT NUMBERS

The Well Known Ports are controlled and assigned by the IANA and on
most systems can only be used by system (or root) processes or by
programs executed by privileged users.

Ports are used in the TCP [RFC793] to name the ends of logical
connections which carry long term conversations. For the purpose of
providing services to unknown callers, a service contact port is
defined. This list specifies the port used by the server process as
its contact port. The contact port is sometimes called the
"well-known port".

To the extent possible, these same port assignments are used with the
UDP [RFC768].

The assigned ports use a small portion of the possible port numbers.
For many years the assigned ports were in the range 0-255. Recently,
the range for assigned ports managed by the IANA has been expanded to
the range 0-1023.

Port Assignments:

Keyword	Decimal	Description	References
	0/tcp	Reserved	
	0/udp	Reserved	
#		Jon Postel <postel@isi.edu>	
tcpmux	1/tcp	TCP Port Service Multiplexer	
tcpmux	1/udp	TCP Port Service Multiplexer	
#		Mark Lottor <MKL@nisc.sri.com>	
compressnet	2/tcp	Management Utility	
compressnet	2/udp	Management Utility	
compressnet	3/tcp	Compression Process	
compressnet	3/udp	Compression Process	
#		Bernie Volz <VOLZ@PROCESS.COM>	
#	4/tcp	Unassigned	
#	4/udp	Unassigned	
rje	5/tcp	Remote Job Entry	
rje	5/udp	Remote Job Entry	
#		Jon Postel <postel@isi.edu>	
#	6/tcp	Unassigned	
#	6/udp	Unassigned	
echo	7/tcp	Echo	
echo	7/udp	Echo	
#		Jon Postel <postel@isi.edu>	
#	8/tcp	Unassigned	

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```
covia              64/udp    Communications Integrator (CI)
#                            "Tundra" Tim Daneliuk
#                            <tundraix!tundra@clout.chi.il.us>
tacacs-ds          65/tcp    TACACS-Database Service
tacacs-ds          65/udp    TACACS-Database Service
#                            Kathy Huber <khuber@bbn.com>
sql*net            66/tcp    Oracle SQL*NET
sql*net            66/udp    Oracle SQL*NET
#                            Jack Haverty <jhaverty@ORACLE.COM>
bootps             67/tcp    Bootstrap Protocol Server
bootps             67/udp    Bootstrap Protocol Server
bootpc             68/tcp    Bootstrap Protocol Client
bootpc             68/udp    Bootstrap Protocol Client
#                            Bill Croft <Croft@SUMEX-AIM.STANFORD.EDU>
tftp               69/tcp    Trivial File Transfer
tftp               69/udp    Trivial File Transfer
#                            David Clark <ddc@LCS.MIT.EDU>
gopher             70/tcp    Gopher
gopher             70/udp    Gopher
#                            Mark McCahill <mpm@boombox.micro.umn.edu>
netrjs-1           71/tcp    Remote Job Service
netrjs-1           71/udp    Remote Job Service
netrjs-2           72/tcp    Remote Job Service
netrjs-2           72/udp    Remote Job Service
netrjs-3           73/tcp    Remote Job Service
netrjs-3           73/udp    Remote Job Service
netrjs-4           74/tcp    Remote Job Service
netrjs-4           74/udp    Remote Job Service
#                            Bob Braden <Braden@ISI.EDU>
                   75/tcp    any private dial out service
                   75/udp    any private dial out service
#                            Jon Postel <postel@isi.edu>
.deos              76/tcp    Distributed External Object Store
deos               76/udp    Distributed External Object Store
#                            Robert Ullmann <ariel@world.std.com>
                   77/tcp    any private RJE service
                   77/udp    any private RJE service
#                            Jon Postel <postel@isi.edu>
vettcp             78/tcp    vettcp
vettcp             78/udp    vettcp
#                            Christopher Leong <leong@kolmod.mlo.dec.com>
finger             79/tcp    Finger
finger             79/udp    Finger
#                            David Zimmerman <dpz@RUTGERS.EDU>
www-http           80/tcp    World Wide Web HTTP
www-http           80/udp    World Wide Web HTTP
#                            Tim Berners-Lee <timbl@nxoc01.cern.ch>
hosts2-ns          81/tcp    HOSTS2 Name Server
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decvms-sysmgt       441/tcp    decvms-sysmgt
decvms-sysmgt       441/udp    decvms-sysmgt
#                              Lee Barton <barton@star.enet.dec.com>
cvc_hostd           442/tcp    cvc_hostd
cvc_hostd           442/udp    cvc_hostd
#                              Bill Davidson <billd@equalizer.cray.com>
https               443/tcp    https   MCom
https               443/udp    https   MCom
#                              Kipp E.B. Hickman <kipp@mcom.com>
snpp                444/tcp    Simple Network Paging Protocol
snpp                444/udp    Simple Network Paging Protocol
#                              [RFC1568]
microsoft-ds        445/tcp    Microsoft-DS
microsoft-ds        445/udp    Microsoft-DS
#                              Arnold Miller <arnoldm@microsoft.com>
ddm-rdb             446/tcp    DDM-RDB
ddm-rdb             446/udp    DDM-RDB
ddm-dfm             447/tcp    DDM-RFM
ddm-dfm             447/udp    DDM-RFM
ddm-byte            448/tcp    DDM-BYTE
ddm-byte            448/udp    DDM-BYTE
#                              Jan David Fisher <jdfisher@VNET.IBM.COM>
as-servermap        449/tcp    AS Server Mapper
as-servermap        449/udp    AS Server Mapper
#                              Barbara Foss <BGFOSS@rchvmv.vnet.ibm.com>
tserver             450/tcp    TServer
tserver             450/udp    TServer
#                              Harvey S. Schultz <hss@mtgzfs3.mt.att.com>
#                   451-511    Unassigned
exec                512/tcp    remote process execution;
#                              authentication performed using
#                              passwords and UNIX loppgin names
biff                512/udp    used by mail system to notify users
#                              of new mail received; currently
#                              receives messages only from
#                              processes on the same machine
login               513/tcp    remote login a la telnet;
#                              automatic authentication performed
#                              based on priviledged port numbers
#                              and distributed data bases which
#                              identify "authentication domains"
who                 513/udp    maintains data bases showing who's
#                              logged in to machines on a local
#                              net and the load average of the
#                              machine
cmd                 514/tcp    like exec, but automatic
#                              authentication is performed as for
#                              login server
```